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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/500,790      | 02/07/2005  | Daqing Wang          | 915-006.043         | 7012             |

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WARE FRESSOLA VAN DER SLUYS &  
ADOLPHSON, LLP  
BRADFORD GREEN, BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

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| EXAMINER |
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NGUYEN, SIMON

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| ART UNIT | PAPER NUMBER |
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2618

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/20/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/500,790

Applicant(s)

WANG ET AL.

Examiner

SIMON D. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 2 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7, 10-13, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al. (6,999,753) in view of Toskala et al. (2001/0008838)

Regarding claim 1, Beckmann discloses a method for downlinking packet access for FDD mode for a wireless communication system (fig.1, column 5 lines 1-6), comprising the following steps: a base station sending indication information to a mobile terminal device (fig.1, column 6 lines 10-15, 35-39); the mobile terminal device identified by the said indication information receiving signaling information, wherein an indicator designates a specific mobile terminal device accessible in a downlink channel (column 7 lines 25-43, 49-52), characterized by the steps of: including said indicator into the slot structure of a Paging Indicator Channel (PICH), said indicator comprising a plurality of identification bits, each identification bit being assigned (column 7 lines 49-67, column 8 lines 39-42).

It should be noted that the system as taught by Beckmann is an UMTS in particular with the multimedia broadcast/multicast service (column 9 lines 4-11) which means the system of Beckmann is a high speed downlink access service and

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furthermore, even Beckmann does not specifically disclose decoding, it is known to those skilled in the art that in order for a mobile station to detect whether the PICH transmitted is intended to the mobile station, the mobile station has to decode the PICH to find out. However, Beckmann fails to teach decoding and the system is in a TDD mode.

Toskala discloses a TDD mode for downlinking packet access from a BS to mobile stations using a PICH (abstract, fig.1), where the PICH is decoded to get information (abstract, paragraphs 10, 16). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Beckmann, modified by Toskala in order to apply the technique in a TDD mode.

Regarding claims 3, 7, 10, Beckmann further discloses dividing a plurality of mobile terminal devices upon a plurality of groups and assigning an indicator to each mobile terminal of the group, receiving information on the PICH by the mobile terminal (columns 9-10).

Regarding claims 4-6, 13, Toskala further discloses assigning certain periods of time to each group, wherein each mobile terminal device of a group receives data transmitted within said periods of time assigned to said respective group via said Paging Indicator Channel, wherein the assignment of the paging indicator is accordance to the data traffic of the group (paragraph 10).

Regarding claims 11-12, Beckmann further discloses identifying an address of the mobile station (column 6 lines 45-51). It should be noted that Beckmann discloses the PICH indicating to an intended mobile terminals by bits in a frame, which means

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the identification bits code a binary address and logical address of a mobile terminal which is known to those skilled in the art (column 7 lines 49-67).

Regarding claims 15-18, these claims are rejected for the same reasons as set forth in claim 1, wherein a computer program is inherently in the system to execute the processing steps.

3. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al. (6,999,753) in view of Toskala et al. (2001/0008838) and further in view of Li (2002/0077087).

Regarding claims 8-9, Beckmann discloses a primary or a secondary- CCPCH that is obvious a shared channel (column 7 lines 10-20, column 8 line 20-29). However, Beckmann does not say so.

Li discloses a downlink-shared channel (paragraphs 11, 30). It should be noted that in order for a mobile station to detect information in the shared channel, the mobile station has to decode the shared channel, which is known to those skilled in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have modified Beckmann, modified by Li in order to save the frequency spectrum in the channel transmission.

***Allowable Subject Matter***

4. Claims 2, 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, Beckmann further discloses a plurality of identification bits for the PICH (fig. 3, column 7 lines 49-67). However, Beckmann fails to specifically disclose wherein the plurality of identification bits are four identification bits arranged in two pairs each of two bits on either side of and adjacent to a midamble area of said Paging Indicator Channel.

Regarding claim 14, the prior art of record fails to teach or suggest dividing a plurality of mobile terminals into a plurality of groups based on an N channel hybrid automatic repeat request scheme.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

600 Dulany, Alexandria, VA 22314

Or faxed to:

(571) 273-8300 (for formal communications intended for entry)

Hand-delivered response should be brought to Customer Service Window located at the Randolph Building, 401 Dulany, Alexandria, VA, 22314.

Simon Nguyen

March 13, 2007

A handwritten signature in black ink, appearing to read 'S. Nguyen'.

**SIMON NGUYEN**  
**PRIMARY EXAMINER**